

## DESCRIPTION

The SCF12 Series is designed for use in horizontal or non-laminar air flow clean rooms and features the added convenience of field retrofitting for flange or grid installations. The enclosed and gasketed housing and outside flanged door protect against infiltration of airborne bacteria. Fixture tested to minimum of 100 PSI hose down, higher ratings available(consult factory). The mitered edges on the door frame and the hole-free housing design prevents air exchange between the fixture and plenum. These luminaires are manufactured in accordance with U.S.D.A., F.D.A., N.S.F. and Federal Standard 209E.

Catalog #	Type
Project	
Comments	
Prepared by	

## SPECIFICATION FEATURES

### Application

The SCF12 Series is suitable for use in I.E.S. Class 10 (M2.5), 100 (M 3.5) 1,000 (M 4.5), 10,000 (M 5.5) and 100,000 (M 6.5) clean room environments. Applications include cleanrooms, technical and bio-medical labs, food processing/ testing centers and pharmaceutical labs.

### A ... Lens

Lens is clear extruded with prisms positioned inside fixture and smooth surface on the outside for easy cleaning.

### B ... Fasteners

Flush mounted, stainless steel machine screws secure through captive cage nuts in housing and are evenly spaced to compress gasketing on all sides.

### C ... Housing

Nominal 5" deep recessed one-piece housing made of 20 ga. CRS. Die-formed and seam welded to create a sealed chamber.

### D ... Lamps

(By Others)

### E ... Lens Retention

Unique, Particlock(TM) lens retention system utilizes continuous, 18 ga. media clamp-downs. Lens is hermetically sealed to door frame for an airtight seal against the environment.

### F ... Hinge

Reversible drop-link hinging system for easy maintenance.

### G ... Door

(Optional) Door can be extruded aluminum, fully gasketed, outside flanged door with mitered edges eliminates seams which could entrap microscopic contaminants. Not standard, must specify. One-piece die-formed stainless steel door and housing trim flange optional.

### H ... Ballast

Standard Class P, CBM/ETL ballast.

### I ... Gasket

MicroSeal(TM) gasketing system features silicone RTV sealant surrounding the perimeter of lens to seal lens to door frame and extruded silicone rubber gasketing around perimeter of door and housing trim flange to seal door to housing and housing to ceiling.

### J ... Access

A gasketed access plate on top of the housing with two flattened, 7/8" diameter knockouts allows connection of vapor tight conduit fitting.

### Labels

U.L. listed, C.S.A. certified, standard wet label.



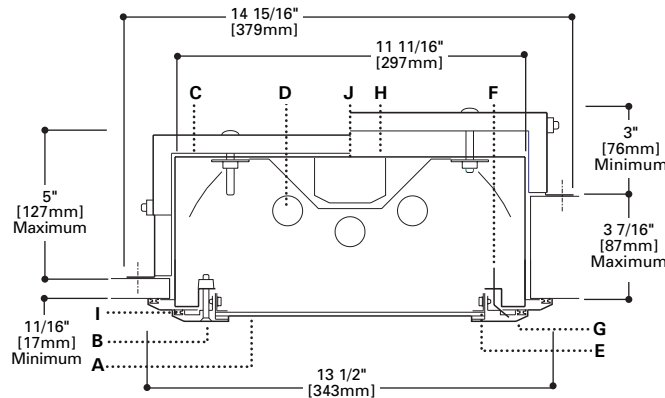
## SCF12

17W - 120W  
Fluorescent

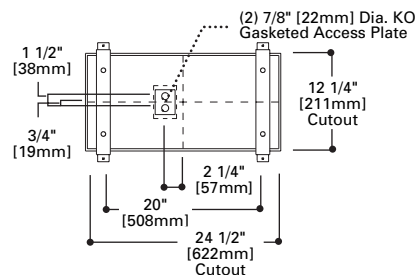
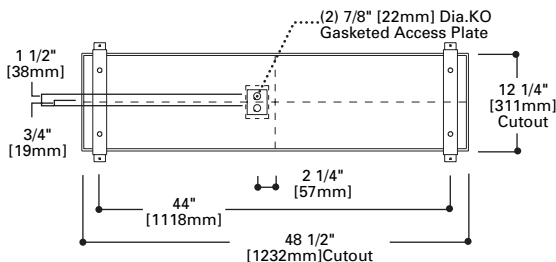
1' X 2'

1' X 4'

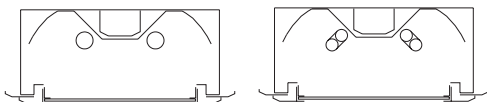
SPECIFICATION GRADE  
FLUORESCENT FLANGE  
Outside Flanged Door



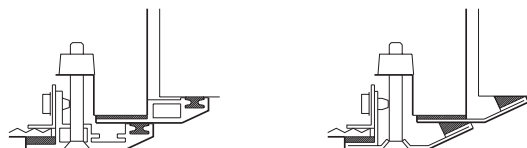
## MOUNTING DIMENSIONS



## LAMP CONFIGURATIONS



## DOOR FRAME



Extruded aluminum mitered door frame and housing trim flange with extruded silicone rubber perimeter gasketing

One piece stainless steel door frame and housing trim flange with extruded closed cell silicone perimeter gasketing

## ENERGY DATA

Input Watts:

### STD Ballasts & STD Lamps

- (1) 20W T12 Fluorescent: 32W
- (2) 20W T12 Fluorescents: 53W
- (3) 20W T12 Fluorescents: 85W
- (1) 40W Bi axial Fluorescent: 45W
- (2) 40W Bi axial Fluorescents: 82W

### ES Ballasts & STD Lamps

- (1) 17W T8 Fluorescent: 23W
- (2) 17W T8 Fluorescents: 45W
- (3) 17W T8 Fluorescents: 68W
- (1) 32W T8 Fluorescent: 37W
- (2) 32W T8 Fluorescents: 71W
- (3) 32W T8 Fluorescents: 108W
- (1) 40W T12 Fluorescent: 50W
- (2) 40W T12 Fluorescents: 86W
- (3) 40W T12 Fluorescents: 136W

### ES Ballasts & ES Lamps

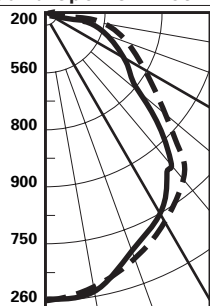
- (1) 40W T12 Fluorescent: 44W
- (2) 40W T12 Fluorescents: 76W
- (3) 40W T12 Fluorescents: 120W

### Electronic Ballast Data:

Consult Cooper Lighting Representative

## PHOTOMETRICS

## Candlepower Distribution



Test No. 8719  
**SCF-12-332-120-1K12-EB82-SSN**  
 Lamp=F32T8  
 No. Lamps=3  
 Lumens=2850  
 Spacing Criteria  
 $\perp=1.1$   $\parallel=1.2$   
 Efficiency=57.6%

---  $\perp$   
 ---  $\parallel$

## Average

## Luminance

Deg.	$\perp$	$\parallel$
45	1884	2108
55	1657	1888
65	1405	1671
75	1020	1288
85	583	654

## Zonal Lumen Summary

Zone	Lumens	%Lamp	%Luminaire
0-30	1565	18.3	31.8
0-40	2447	28.6	49.7
0-60	4090	47.8	83.0
0-90	4927	57.6	100.0
90-180	0	0.0	0.0
0-180	4927	57.6	100.0

## Coefficient of Utilization

rc	80%				70%			50%		30%		10%		0%
	70	50	30	10	50	30	10	50	10	50	10	50	10	
RCR														
0	69	69	69	69	67	67	67	64	64	61	61	59	59	58
1	64	61	59	57	60	58	56	58	54	55	53	53	51	50
2	59	54	51	48	53	50	47	51	46	50	45	48	44	43
3	54	49	44	41	48	44	41	46	41	45	39	43	39	37
4	50	43	39	35	43	38	35	41	35	40	34	39	34	33
5	46	39	34	30	38	33	30	37	30	36	29	35	29	28
6	42	35	30	26	34	30	26	33	26	32	26	31	26	25
7	39	31	27	23	31	26	23	30	23	29	23	28	23	21
8	36	28	23	20	28	23	20	27	20	26	20	26	20	19
9	33	25	21	18	25	21	18	24	17	24	17	23	17	16
10	31	23	19	16	23	19	16	22	16	22	15	21	15	14

rc=Ceiling reflectance, rw=Wall reflectance, RCR=Room cavity ratio

CU Data Based on 20% Effective Floor Cavity Reflectance.

## ORDERING INFORMATION

SAMPLE NUMBER: SCF-12-340-277-1K12-LE3-ALP-GLR

Product Family	Width	Lamp Type	Voltage	Lens Type	Ballast	Door/Finish Options	Options
<b>SCF</b>	<b>12</b>						
SCF=Specification Grade Cleanroom Flange Type	12=12"	<b>2' Fixture Length T8 Fluorescents</b> 117=(1) 17W Lamp 217=(2) 17W Lamps 317=(3) 17W Lamps  <b>T12 Fluorescents</b> 120=(1) 20W Lamp 220=(2) 20W Lamps 320=(3) 20W Lamps  <b>Biaxial Fluorescents</b> 140BX=(1) 40W Lamp 240BX=(2) 40W Lamps  <b>4' Fixture Length T8 Fluorescents</b> 132=(1) 32W Lamp 232=(2) 32W Lamps 332=(3) 32W Lamps  <b>T12 Fluorescents</b> 140=(1) 40W Lamp 240=(2) 40W Lamps 340=(3) 40W Lamps	120=120V 277=277V 347=347V	1K12=K-12 Prismatic Acrylic IP12=K-12 Prismatic Polycarbonate KSH25 <sup>1</sup> =Bat Wing Distribution 93=Prismatic Tempered Glass	<b>LE3=Energy Saving Ballast</b>  <b>Electronic Ballast<sup>2</sup></b> <b>EB81</b> =(1) Ballast for use with T8 Lamp <b>EB82</b> =(2) Ballasts for use with T8 Lamp <b>EB21</b> =(1) Ballast for use with T12 Lamp <b>EB22</b> =(2) Ballasts for use with T12 Lamp <b>EBX1</b> =(1) Ballast for use with Biaxial Lamp <b>EBX2</b> =(2) Ballasts for use with Biaxial Lamp	<b>ALP</b> =Aluminum Door &Trim/Polyester Powder Finish <b>ALX</b> =Extruded Aluminum Door &Trim, Clear Anodized Finish <b>ALXP</b> =Extruded Aluminum Door& Trim, Polyester Powder Finish (Standard)	<b>EBP</b> =Emergency Battery Pack <b>GLR</b> =Fuse and Holder <b>RIF</b> =Radio Frequency Interference Filter  <b>Housing Options</b> <b>SHN</b> =Stainless Steel, Brushed 304 Coat <b>SHP</b> =Stainless Steel, Polyester Powder Coat <b>ALH</b> =Aluminum, Polyester Powder Finish  <b>Accessories (order separately)</b>  <b>MFCF12-4FT</b> =Mounting Frame (not required for installation)

## Notes:

For additional options please consult Cooper Lighting Representative.  
 Specifications and Dimensions subject to change without notice.

<sup>1</sup> The KSH25 provides improved visual performance and wide angle distribution. This lens has an integral prism pattern designed so that prisms face the lamp cavity and still supply superior photometrics. Highly recommended for all high tech manufacturing environments.

<sup>2</sup> For specific electronic ballast, specify brand and catalog number.

## SHIPPING INFORMATION

Catalog Number	Weight	Catalog Number	Weight
SCF-12-117	25 lbs. [11 kg.]	SCF-12-232	40 lbs. [18 kg.]
SCF-12-217	25 lbs. [11 kg.]	SCF-12-332	44 lbs. [20 kg.]
SCF-12-317	29 lbs. [13 kg.]	SCF-12-140	40 lbs. [18 kg.]
SCF-12-120	25 lbs. [11 kg.]	SCF-12-240	40 lbs. [18 kg.]
SCF-12-220	25 lbs. [11 kg.]	SCF-12-340	44 lbs. [20 kg.]
SCF-12-320	29 lbs. [13 kg.]	SCF-12-140BX	25 lbs. [11 kg.]
SCF-12-132	40 lbs. [18 kg.]	SCF-12-240BX	25 lbs. [11 kg.]